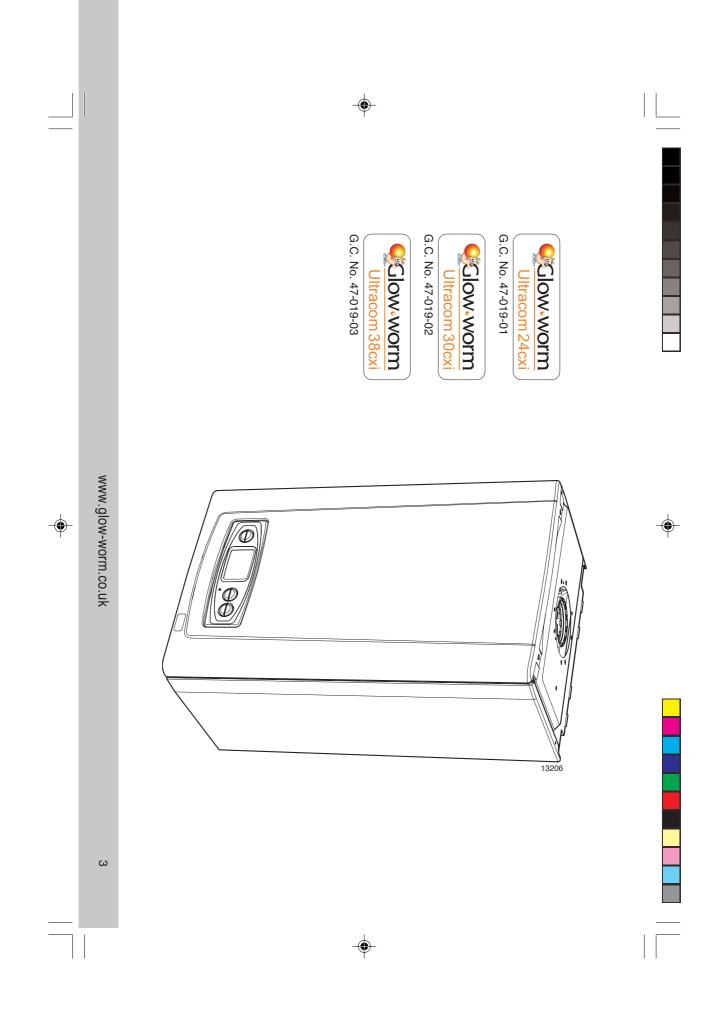


The code of practice for the installation, commissioning & servicing of gas central heading	Has Lear on the pase emergency control valve immediately. Eliminate all sources of ignition, i.e. smoking, blowlamps, hot air guns etc. Do not operate electrical lights or switches either on or of Dpen all doors and windows, ventilate the area.   Image: metal parts (components) and care should be taken when handling and cleaning, with particular regard to edges.   Image: metric or circumstances must the user interfere with or adjust sealed parts.   Glow-worm service call: 01773 828100 Technical helpline: 01773 828300   General and Sales enquiries To 1773 824639	



						-	<b>.</b>								
•	4 www.glow-worm.co.uk	These instructions are an integral part of the boiler and must, to comply with the current issue of the Gas Safety (Installation and Use) Regulations, be left with the user. Please read these instructions and follow them carefully for the safe and economical use of your boiler.	Fault Finding	Advancing the Programmer	Setting the Programmer	Setting the 24 hour Clock	Adjusting Temperature	Lighting the Boiler	User Control Panel	Servicing, Maintenance and Spare Parts	Boiler Safety Devices	Boiler Design and Clearances	Important Information	Contents	
		h the current issue of the Gas the user. conomical use of your boiler.	15	14	13	12	11	10	9	8	7	6	J	Page	



# Important Information

# Gas Safety (Installation and Use) Regulations

In your own interests and that of safety, it is the Law that ALL gas appliances have been installed by a **competent person** in accordance with the current issue of these regulations.

#### Gas Category

This boiler is for use only on G20 natural gas but can be converted for use on G31 propane.

## **Electrical Connection**

The boiler **MUST** be earthed.

The boiler **MUST** be connected to a permanent 230V ac, 50Hz supply, fused at 3A.

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Connection of the whole electrical system of the boiler, including any heating controls, to the electrical supply must be through one common isolator.

The colours of three core flexible cable are, blue - neutral. brown - live, green and yellow - earth.

# **Testing and Certification**

This boiler is certificated to the current issue of EN 483 for performance and safety.

It is important that no alteration is made to the boiler unless approved, in writing, by Glow-worm.

Any alteration not approved by Glow-worm, could invalidate the certification, boiler warranty and may also infringe the current issue of the statutory requirements.

#### CE Mark

This boiler meets the requirements of Statutory Instrument, No. 3083 of the Boiler (Efficiency) Regulations, and therefore is deemed to meet the requirements of Directive 92/42/EEC on the efficiency requirements for new hot water boilers fired with liquid or gaseous fuels.

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Type test for purposes of Regulation 5 certified by: Notified body 0087.

Product/production certified by: Notified body 0086.

The CE mark on this appliance shows compliance with:

 Directive 90/396/EEC on the approximation of the laws of the Member States relating to appliances burning gaseous fuels.

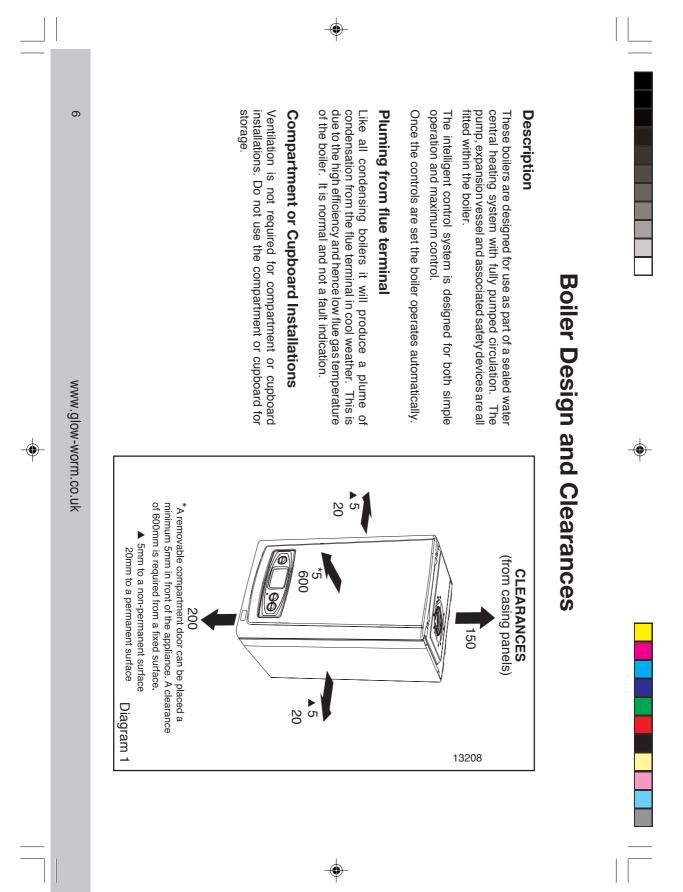
 Directive 73/23/EEC on the harmonisation of the Laws of the Member States relating to electrical equipment designed for use within certain voltage limits.

3. Directive 89/336/EEC on the approximation of the Laws of the Member States relating to electromagnetic compatibility.

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# **Boiler Safety Devices**

## **Boiler Shutdown**

The boiler software is designed to recognise the potential for an overheat lockout and will shutdown before this happens. To restart the boiler, press the reset button, see diagram 2.

If the boiler fails to resume normal operation and all external controls are calling for heat, then call your Installation/Servicing company or Glow-worm service.

### **Frost Protection**

With the gas and electric supplies ON and irrespective of any room thermostat setting, the integral frost protection device will operate the pump when the temperature of the boiler water falls below 8°C.

The pump will stop after 10 minutes if the temperature is higher than  $10^{\circ}$ C or has already reached  $35^{\circ}$ C.

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The burner will only activate if the boiler temperature does not reach  $10^{\circ}$ C after 30 minutes or at any time if the temperature drops to  $5^{\circ}$ C.

The burner will switch off when the temperature reaches 35°C.

**NOTE:** Any other exposed areas of the system should be protected by a separate frost thermostat.

Condensate Drain Blockage

# As a safety feature the boiler will stop working if the condensate drain becomes blocked. During freezing conditions this may be due to the forming of ice in the condense drain external to the house. Release an ice blockage by the use of warm cloths on the pipe. The boiler should then restart. Contact your Installation/Servicing company or Glow-worm service if the

# Safety Discharge Valve

fault persists.

The safety discharge valve and discharge pipe is fitted to the boiler. If there is any discharge from the pipe, switch off the boiler electrical supply, then call your Installation/Servicing company or Glow-worm service.

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# Servicing, Maintenance and Spare Parts

#### **General Note**

Servicing/maintenance should be carried out by a **competent person** in accordance with the rules in force in the countries of destination.

If this boiler is installed in a rented property in the UK there is a duty of care imposed on the owner of the property by the current issue of the Gas Safety (Installation and Use) Regulations, Section 35.

#### Servicing

To ensure the continued efficient and safe operation of the boiler it is recommended that it is checked and serviced at regular intervals. The frequency of servicing will depend upon the site conditions and usage, but in general, once a year should be enough.

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To obtain service, please call your installer or Glow-worm's own service organisation using the telephone number on the inside front cover of this booklet.

#### Cleaning

The boiler casing can be cleaned using a mild liquid detergent with a damp cloth, then a dry cloth to polish.

Do not use any form of abrasive or solvent cleaner as you may damage the paintwork.

#### Frost Protection

If the mains electricity and gas services are to be turned off for any long periods during severe weather, it is recommended that the whole system, including the boiler, should be drained to avoid the risk of freezing.

## Sealed Water Systems

The draining, refilling and pressurising **MUST** be carried out by a **competent person**, contact your Installation/Servicing company or Glow-worm Service.

#### Spare Parts

REMEMBER, When replacing a part on this boiler, use only spare parts that you can be assured conform to the safety and performance specification that we require. Do not use reconditioned or copy parts that have not been clearly authorised by Glow-worm.

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If replacement parts are required contact Glow-worm's own service organisation using the telephone number on the inside front cover of this booklet.

Please quote the name and model of the boiler. The name and model badge is on the front case.

If in doubt seek advice from the local gas company or Glowworm's own service organisation using the telephone number on the inside front cover of this booklet.

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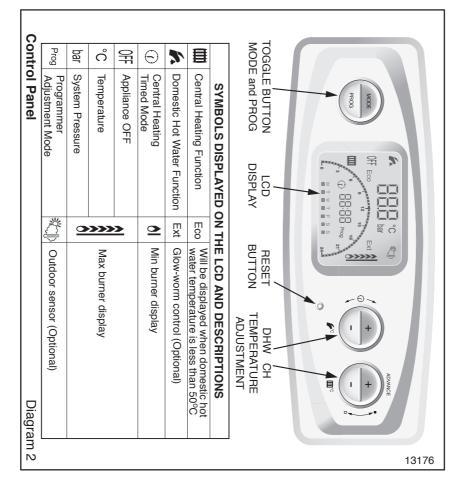


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# **User Control Panel**

## **General Description**

The User Control panel consists of three toggle buttons, a reset button and display, which will indicate with symbols the status of the boiler, refer to diagram 2.



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# Lighting the Boiler

#### Initial Lighting

Remove the cover plate, refer to the fault finding section on page 15 and diagram 8.

water taps, then close taps, refer diagram 3. Check that all isolating valves and the gas service cock on the appliance are open and that water flows from the hot

2. Select your required function, refer to diagram 9, press "Mode" repeatedly to scroll through your options and select

one of the following:-

continuing, refer to diagram 5.

reason, you may need to set the clock and day before

Note: If the electrical supply has been interrupted for any

service organisation using the telephone number on the with water contact your installer or Glow-worm's own Note: If you are in any doubt about the boiler being filled inside front cover of this booklet.

Do not operate the boiler without water.

the electrical supply to the boiler. With no demand from any external controls, switch on

Domestic hot water only.

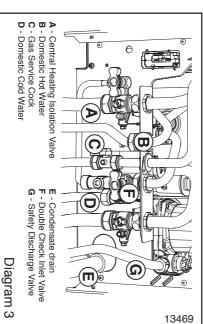
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Constant central heating with domestic hot water.

Timed central heating with domestic hot water

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Boiler functions ALL switched off 붜

3. Turn ON your external controls and select the room temperature required.

The boiler will operate automatically.

pressure in bar or: Note: The display will indicate the Heating system

- Water temperature, when heating is on
- Domestic Hot Water temperature setpoint, when there is a demand.
- Fault Code (see section Fault Finding)

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# Adjusting Temperature



Domestic hot water has priority over central heating.

The temperature is factory preset to the minimum 40°C, but can be adjusted to a maximum of 62°C as required, refer to diagram 4.

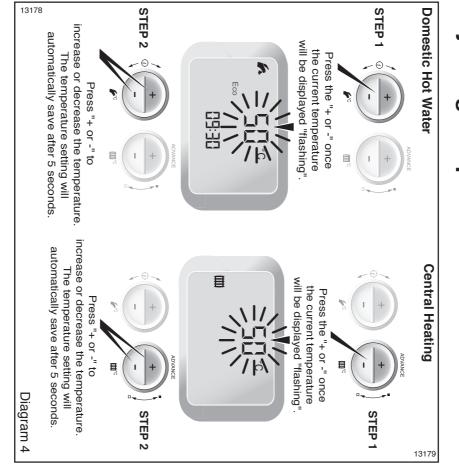
## Economy Setting

The "ECO" setting of 50°C is recommended and ideally suited to normal family use.

## **Central Heating**

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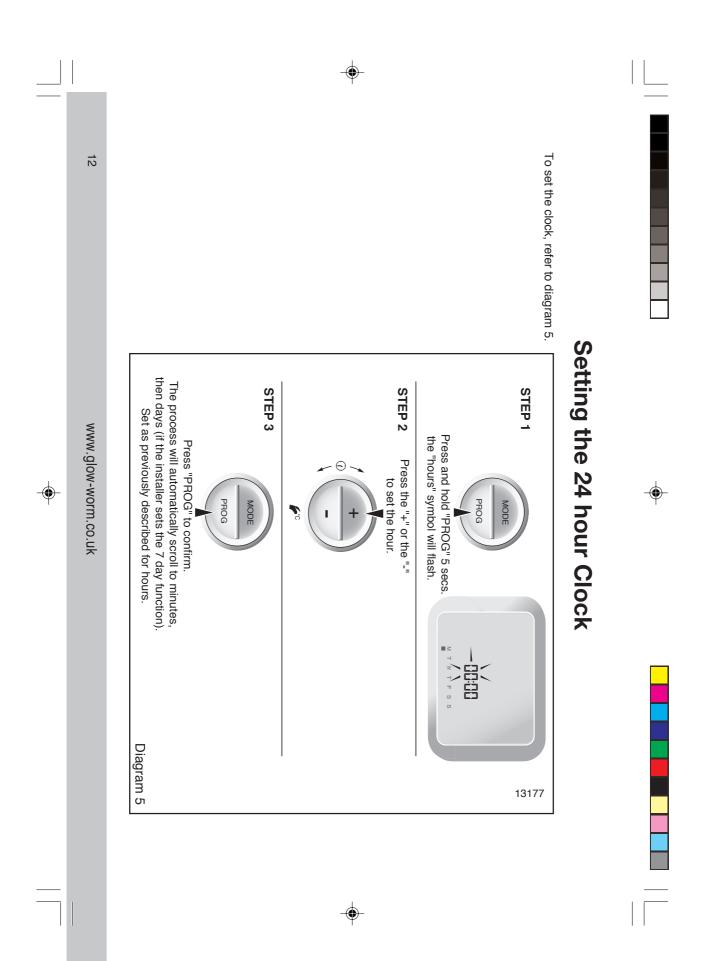
The temperature is factory preset to the minimum 38°C, but can be adjusted to a maximum of 82°C as required, refer to diagram 4.



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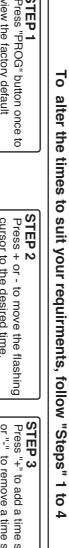
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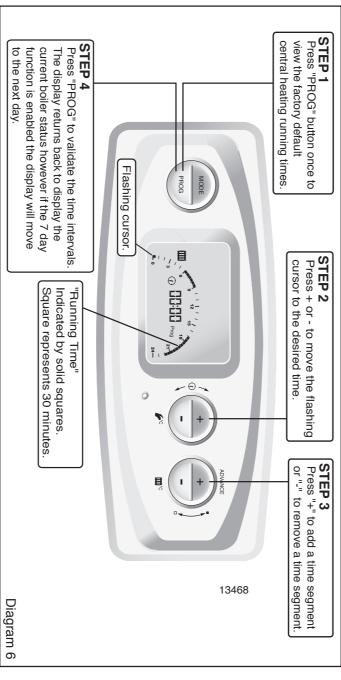


# Setting the Programmer

#### ≣ 24hr Timed Central Heating

ON 6.00 - OFF 8.00 ON 16.00 - OFF 23.00 Factory preset timed intervals are:-



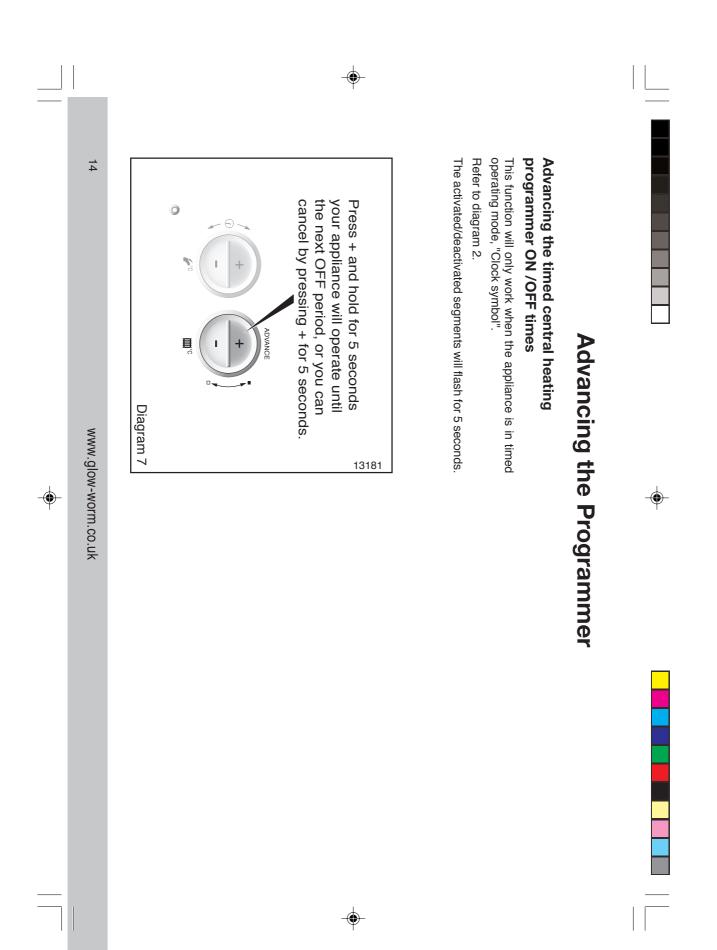


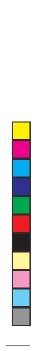
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## Fault Finding

# Appliance fails to light

The LCD will display a flashing 'F' and code number, press the reset button on the control panel, see diagram 2.

If the display shows a flashing pressure of 0.4bar or less, then you will need to pressurise the system as described below.

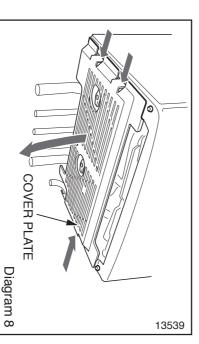
If any fault persists, contact your installer/service provider or Glow-worm Service, using the telephone number on the inside front cover of this booklet.

# Filling Central Heating System

Remove the cover plate, see diagram 8.

 Ensure that the filling loop flexible hose is securely connected to the double check inlet valve, see diagram 9.

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2. Fully open tap "A", then gradually open tap "B" to fill the heating system to a pressure of 1.0bar. When completed close the filling taps.

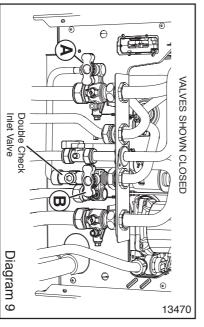
3. **IMPORTANT:** To comply with the water regulations the flexible hose must be disconnected from the double check inlet valve - undo the nut and pull the flexible hose from the valve.

# **Electrical Supply Failure**

The boiler will not work without an electrical supply and normal operation of the boiler should resume when the electrical supply is restored.

If the boiler does not resume normal operation, check the external controls, it may be necessary, to "reset" the boiler, refer to the section, "Boiler Safety Devices".

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